

IN THE CLAIMS:

The text of all pending claims (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (Currently Amended) A cross-site search method used in a server that connects to a user terminal and information retrieval sites through a network and that requests information retrieval according to a search condition designated by said user terminal to receive search results from said information retrieval sites, said method comprising:

recording, into storage, a script definition in which a conversion function and an authentication function are defined for each of said information retrieval sites that requires authentication as a condition to respond search results~~into storage~~, said conversion function converting a description of the search condition in compliance with a predetermined description rule into a description in compliance with a description rule of each of said information retrieval sites, and said authentication function being used for an authentication procedure of each of said information retrieval sites that requires authentication as a condition to respond search results;

recording, into said storage, a script definition in which a conversion function is defined for each of said information retrieval sites in which an authentication is unnecessary;

recording predetermined-sets number of pieces of authentication information and ID information into said storage for each of said information retrieval sites that require authentication and restrict number of accesses, the said authentication information being assigned to said server by each of said information retrieval sites;

~~recording a process ID into the ID information of one of the sets of the authentication information when the authentication information in the one of the sets is used to access a corresponding information retrieval site;~~

generating a cross-site search process when designation of one of said information retrieval sites with search condition is accepted from said user terminal;

said cross-site search process executing;

~~reading, from said storage, the said script definition and a corresponding set of the authentication information and the ID information for one of to said information retrieval sites designated by the said user terminal;~~

identifying a piece of authentication information unused by other cross-site search processes from among pieces of authentication information corresponding to said information retrieval site designated by said user terminal when said script definition read in said reading step defines the authentication function;

~~transmitting, to the one of said information retrieval sites, the authentication information in the corresponding set of the authentication information and the ID information when the ID information in the corresponding set is blank;~~

~~receiving the authentication from the one of said information retrieval sites site by executing the transmitting said authentication information unused by other cross-site search processes according to said authentication function when the script definition for the one of said information retrieval sites includes the authentication function;~~

~~converting said search condition designated by the said user terminal into a search condition in compliance with a description rule of the one of said information retrieval sites site by executing the according to said conversion function defined in the said script definition;~~

~~transmitting a search request according to the converted search condition to the one of said information retrieval sites;~~

~~receiving the search results from the one of said information retrieval sites site that has retrieved information in response to said by transmitting a search request that includes said search condition converted in said converting step; and~~

~~transmitting, to said user terminal, the received said search results received from said information retrieval to the user terminal.~~

2. (Cancelled)

3. (Currently Amended) The cross-site search method according to claim 1, further comprising:

~~transmitting authentication information assigned by the one of said information retrieval sites to the one of said information retrieval sites site according to the authentication function to receive the authentication from the one of said information retrieval sites site when the said script definition for the one of said information retrieval sites site includes said authentication function.~~

4. (Currently Amended) The cross-site search method according to claim 1, wherein

communication between said server and said user terminal, and communication between said server and said information retrieval ~~sites~~site use TCP/IP and HTTP, respectively.

5. (Currently Amended) A computer readable medium encoded with a cross-site search program that when executed by a server, connected to a user terminal and information retrieval sites through a network, requests information retrieval according to a search condition designated by said user terminal to receive search results from the information retrieval sites by performing a method comprising:

recording, into a storage, a script definition in which a conversion function and an authentication function are defined for each of said information retrieval sites~~into storage that requires authentication as a condition to respond search results~~, said conversion function converting a description of the search condition in compliance with a predetermined description rule into a description in compliance with a description rule of each of said information retrieval sites, and said authentication function being used for an authentication procedure of each of said information retrieval sites that requires authentication as a condition to respond search results;

recording, into said storage, a script definition in which a conversion function is defined for each of said information retrieval sites in which an authentication is unnecessary;

recording predetermined ~~sets~~number of pieces of authentication information and ID information~~into said storage for each of said information retrieval sites that require authentication and restrict number of accesses, the~~said authentication information being assigned to said server by each of said information retrieval sites;

~~recording a process ID into the ID information of one of the sets of the authentication information when the authentication information in the one of the sets is used to access a corresponding information retrieval site;~~

generating a cross-site search process when designation of one of said information retrieval sites with search condition is accepted from said user terminal;

said cross-site search process executing:

reading, from said storage~~the~~, said script definition ~~and a corresponding set of the authentication information and the ID information for one of to~~ said information retrieval sites designated by ~~the~~said user terminal;

~~transmitting, to the one of said information retrieval sites, the authentication information in the corresponding set of the authentication information and the ID information when the ID information in the corresponding set is blank;~~

identifying a piece of authentication information unused by other cross-site search processes from among pieces of authentication information corresponding to said information retrieval site designated by said user terminal when said script definition read in said reading step defines the authentication function;

receiving authentication from the one of said information retrieval sites-site by executing the transmitting said authentication information unused by other cross-site search processes according to said authentication function when the script definition for the one of said information retrieval sites includes the authentication function;

converting said search condition designated by the said user terminal into a search condition in compliance with a description rule of the one of said information retrieval sites by executing the site according to said conversion function defined in the said script definition;

transmitting a search request according to the converted search condition to the one of said information retrieval sites;

receiving the search results from the one of said information retrieval sites that has retrieved information in response to said site by transmitting a search request that includes said search condition converted in said converting step; and

transmitting the received, to said user terminal, said search results to said user terminal received from said information retrieval.

6. (Previously Presented) The computer readable medium according to claim 5, wherein said cross-site search program is a Common Gateway Interface program.

7. (Cancelled)

8. (Currently Amended) A server that connects to a user terminal and information retrieval sites through a network and that requests information retrieval according to a search condition designated by said user terminal and receives search results from the information retrieval sites, said server comprising:

receiving means for receiving said search condition from said user terminal;

recording means for recording, in a storage, a script definition in which a conversion function and an authentication function for each of said information retrieval sites into said storage that requires authentication as a condition to respond search results, the conversion function converting a description of the search condition in compliance with a predetermined description rule into a description in compliance with a description rule of each of said

information retrieval sites, and the authentication function being used for an authentication procedure of each of said information retrieval sites that requires authentication as a condition to respond search results;

recording, into said storage, a script definition in which a conversion function is defined for each of said information retrieval sites in which an authentication is unnecessary;

recording means for recording predetermined ~~sets~~ number of pieces of authentication information and ~~ID information~~ into said storage for each of said information retrieval sites that require authentication and restrict number of accesses, ~~the said~~ authentication information being assigned to said server by each of said information retrieval sites;

~~recording means for recording a process ID into the ID information of one of the sets of the authentication information when the authentication information in the one of the sets is used to access a corresponding information retrieval site;~~

generating means for generating a cross-site search process when designation of one of said information retrieval sites with search condition is accepted from said user terminal;

said cross-site search process executing;

reading means for reading, from said storage ~~the, said~~ script definition and a corresponding ~~set of the authentication information and the ID information for one of~~ said information retrieval sites designated by ~~the said~~ user terminal;

identifying means for identifying a piece of authentication information unused by other cross-site search processes from among pieces of authentication information corresponding to said information retrieval site designated by said user terminal when said script definition read in said reading step defines the authentication function;

~~transmitting means for transmitting, to the one of said information retrieval sites, the authentication information in the corresponding set of the authentication information and the ID information when the ID information in the corresponding set is blank;~~

receiving means for receiving authentication from ~~the one of~~ said information retrieval sites site by ~~executing the transmitting said authentication information unused by other cross-site search processes according to said authentication function when the script definition for the one of said information retrieval sites includes the authentication function;~~

converting means for converting the search condition designated by ~~the said~~ user terminal into a search condition in compliance with a description rule of ~~the one of~~ said information retrieval sites site by ~~executing the according to said~~ conversion function defined in the said script definition;

~~transmitting means for transmitting a search request according to the converted~~

~~search condition to the one of said information retrieval sites;~~

~~receiving means for receiving the search results from said one of said information retrieval sites that has retrieved information in response to said site by transmitting a search request that includes said search condition converted in said converting step; and~~

~~transmitting means for transmitting the received, to said user terminal, said search results to the user terminal received from said information retrieval.~~

9. (Cancelled)

10. (New) The cross-site search condition according to claim 1, wherein said cross-site search process further executing:

waiting until a piece of authentication information unused by other cross-site search processes appears when all of the pieces of authentication information corresponding to said information retrieval site designated by said user terminal are used by other cross-site search processes.

11. (New) A method, comprising:

recording, in a storage, a script definition for each site that does not require authentication, a script definition for an authentication function for each site that requires authentication, and a predetermined number of pieces of authentication information for each site that requires authentication and restrict the number of accesses;

generating a search process when a user designates a site to be searched with a search condition;

transmitting a piece of authentication information identified as corresponding to the site designated by the user based on the script definition read from the storage;

receiving an authentication from a site requiring authentication after the piece of authentication information that corresponds to the site is transmitted to the site;

receiving search results from the site after a search request that includes a search condition is transmitted to the site; and

transmitting the search results received from the site to the user.